ZooKeys 242: 51–67 (2012)
doi: 10.3897/zookeys.242.3889
www.zookeys.org

RESEARCH ARTICLE

A peer-reviewed open-access journal
ZooKeys
Launched to accelerate biodiversity research

Taxonomic and faunistic studies on the genus *Harutaeographa* (Lepidoptera, Noctuidae, Orthosiini) with description of a new species

Balázs Benedek[1,†], Aidas Saldaitis[2,‡], Jolanta Rimsaite[3,§]

1 *H-2045 Törökbálint, Árpád u. 53, Hungary* **2** *Nature Research Centre, Akademijos str. 2, LT–08412 Vilnius-21, Lithuania* **3** *Nature Research Centre, Akademijos str. 2, LT–08412 Vilnius-21, Lithuania*

† *urn:lsid:zoobank.org:author:39550B03-2A4C-4BA1-877D-00F15999FD33*
‡ *urn:lsid:zoobank.org:author:1C168900-4B0F-4999-895D-FAB0B16B14C1*
§ *urn:lsid:zoobank.org:author:9754C97B-5324-42CE-96F5-64E91E13C7E7*

Corresponding author: *Jolanta Rimsaite* (jolanta@ekoi.lt)

Academic editor: *D. Lafontaine* | Received 24 August 2012 | Accepted 26 October 2012 | Published 15 November 2012

urn:lsid:zoobank.org:pub:8A592F63-32BD-4929-96D2-484B4DFA0BBE

Citation: Benedek B, Saldaitis A, Rimsaite J (2012) Taxonomic and faunistic studies on the genus *Harutaeographa* (Lepidoptera, Noctuidae, Orthosiini) with description of a new species. ZooKeys 242: 51–67. doi: 10.3897/zookeys.242.3889

Abstract

Description of a new *Harutaeographa* Yoshimoto, 1993 species, *Harutaeographa shui* **sp. n.** from China's Sichuan province, is given. *Harutaeographa yangzisherpani transformis* Hreblay & Ronkay, 1999 is combined as a synonym of *Harutaeographa yangzisherpani yangzisherpani* Hreblay & Ronkay, 1999. Additional distributional data for *Harutaeographa pallida* Yoshimoto, 1993, and *Harutaeographa cinerea* Hreblay & Ronkay, 1998 are provided. A checklist of the genus *Harutaeographa* and a key to the *Harutaeographa fasciculata* (Hampson, 1894) species-group, based on external characters and genitalia, are presented.

Keywords

Orthosiini, new species, *Harutaeographa,* distribution

Copyright *Balázs Benedek et al.* This is an open access article distributed under the terms of the Creative Commons Attribution License 3.0 (CC-BY), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Introduction

This paper contributes additional taxonomic, genitalic and faunistic information on the taxonomy of the genus *Harutaeographa* Yoshimoto, 1993 to what was previously provided in Chen (1999), Hacker and Ronkay (1996), Hampson (1894, 1906), Hreblay and Ronkay (1998, 1999), Hreblay et al. (1998), Kononenko et al. (1998), Ronkay and Ronkay (2000), Ronkay et al. (2001, 2010), and Yoshimoto (1993, 1994). The genus *Harutaeographa* is typical of the tribe *Orthosiini* within the Himalayan Noctuidae and contains 37 species and 3 subspecies distributed mostly in the Southeast Asian and Himalayan regions. Except for a few Western-Himalayan and Central-Asian species inhabiting semi-dry areas, most members of this genus are associated with the Himalayan monsoonic forest belt. Flight periods generally extend through March and April, but some Southern-Himalayan species are on the wing during the colder November to February period.

Materials and methods

The specimens of *Harutaeographa* preserved in the collections of Alessandro Floriani (Milan, Italy), Balázs Benedek (Törökbálint, Hungary), Gottfried Behounek (Grafing, Germany)/Zoologische Staatssammlung, Munich (Germany), Danny Nilsson (Kalvehave, Denmark) and Nature Research Centre (Vilnius, Lithuania) were examined. The specimens examined were collected in China and Nepal using ultraviolet light traps and occasionally sugar ropes. Seventeen genital slides were prepared and 27 photographs were made. Examination of morphology: after maceration, male and female genitalia were dissected and mounted in euparal on glass sides. Dissection of genitalia follows Lafontaine (2004). Photographs of genitalia were made using a Wild M3Z microscope and Canon EOS 350D camera.

Abbreviations of the material depositories:

AFM Alessandro Floriani (Milan, Italy);
BBT Balázs Benedek (Törökbálint, Hungary);
BMNH Natural History Museum, London (United Kingdom);
DNK Danny Nilsson (Kalvehave, Denmark);
HNHM Hungarian Natural History Museum, Budapest (Hungary);
MNHU Museum für Naturkunde Leibniz Institute for Research on Evolution and Biodiversity, Berlin (Germany);
NHM Naturhistorisches Museum Wien (Austria);
NRCV Nature Research Centre (Vilnius, Lithuania);
NSMT National Science Museum Tokyo (Japan);
ZFMK Zoological Forschungsinstitut und Museum Alexander Koenig, Bonn (Germany);
ZMH Zoological Museum of Helsinki (Finland);
ZSM Zoologische Staatssammlung, Munich (Germany).

Systematic accounts

Key to *Harutaeographa* species related to *Harutaeographa fasciculata* based on external characters

1 Forewings dark brown with black pattern or patches of dark scales.....**2**
Forewings light brown, orbicular stigma whitish (Figs 10, 11)..... ..... ***H. fasciculata*** **(Himalaya: Sikkim, N.India; Nepal)**

2 Wingspan of forewings 37–42 mm, forewings narrow, cilia golden yellow (Figs 6, 7) ..... ***H. shui*** **(China: Sichuan)**
Wingspan of forewings 42–48 mm, forewings wide, cilia dark brown (Figs 8, 9)..... ***H. odavissa*** **(China: Shaanxi, Hubei, Sichuan)**

Key to *Harutaeographa* species related to *Harutaeographa fasciculata* based on genital characters

1 Valva at apex widening, clasper curved, ductus bursae straight.....**2**
– Valva not widening at apex, clasper almost straight, ductus bursae curved at base (Figs 17, 23)..... ***H. fasciculata***

2 Uncus short, apical part of cucullus a boot-shaped plate with short blunt apex, ampula long, curved at apex, almost perpendicular to costa, both anterior and posterior parts of corpus bursae almost equal in size (Figs 15, 21).. ..... ***H. shui*** **sp. n.**
– Uncus 1/3 longer than in *H. shui*, apical part of cucullus boot-shaped with short acute apex, ampula slightly curved at apex, posterior part of corpus bursae longer and narrower than anterior part (Figs 16, 22)..... ***H. odavissa***

Harutaeographa shui Benedek & Saldaitis, sp. n.

urn:lsid:zoobank.org:act:C3F72129-2643-4234-84F6-ABEA933B13A8
http://species-id.net/wiki/Harutaeographa_shui
Figs 6, 7, 15, 21

Type material. Holotype: male (Fig. 6), China, Sichuan, 29°43.105'N, 02°36.195'E, near Siping, 1600 m, 27.iii.2011, Floriani leg., in the collection of ZSM; (slide No. JB1792m).

Paratypes: 3 males, with the same data as the holotype, 1 male, from the same locality, but 02.iv.2011, 1 female (Fig. 7), China, W. Sichuan, road Menghugang/ Kangding, 29°49.955'N, 102°02.827'E, 1500 m, 19.iv.2010, leg. Chen Gun, in the AFM, BBT, and ZSM collections. Slide No. JB1793f.

Etymology. The specific name refers to the Shu Kingdom, which is now Chengdu, the capital of China's Sichuan province.

Diagnosis. *Harutaeographa shui* in general appearance is similar to *H. fasciculata* (Hampson, 1894) (Figs 10, 11), but is smaller and has more oblong forewings. Despite

this superficial resemblance to *H. fasciculata*, based on genital morphology the new species is more closely related to *Harutaeographa odavissa* Ronkay, Ronkay, Gyulai & Hacker, 2010 (Figs 8, 9). These species are easily distinguishable externally by forewing shape, coloration and pattern. The male genitalia differ from those of *H. odavissa* (Fig. 16) by its shorter uncus, smaller tegumen, remarkably broader and apically more elongate cucullus, and the configuration of the clasper-ampulla complex. The structure of aedeagus and vesica are similar to those of *H. odavissa* (Fig. 16), but *H. shui* (Fig. 15) has a slightly more curved aedeagus, differently configured vesica, and longer subterminal cornuti field. The female genitalia of the new species differ from those of *H. odavissa* (Fig. 22) in having a shorter ovipositor, shorter apophyses, and shorter and weaker ductus bursae.

Description. Wingspan 37–42 mm, length of forewing 17–20 mm. Head, front and thorax chocolate brown with some copper shine; male antenna bipectinate, female antenna narrow ciliate; forewings richly decorated with dark coppery-brown patterns distinctly marked with black scales, outer margin and cilia lighter golden yellow; hindwings with intensive dark suffusion, especially wide on outer margin, discal spot, and well-marked postmedial fascia; cilia with copper shine. **Male genitaila** (Fig. 15): uncus short, evenly broad; tegumen small and low; vinculum strong, narrow, V-shaped; valva finely arcuate; cucullus broad with apex elongate; sacculus weak, less sclerotized; clasper and ampulla robust outside and turned at middle; aedeagus rather long, gently arcuate; vesica with two subbasal coils and a small rasp-plate at base near carina, two small bunches of stronger cornuti in subbasal coils, and a long brush-like cornuti field on arcuate subterminal area. **Female genitalia** (Fig. 21): ostium nearly evenly truncated; ductus bursae narrow, somewhat wider and less sclerotized posteriorly; appendix bursae relatively small and rounded, weakly sclerotized; corpus bursae elongated, mesially constricted, with anterior and posterior parts subequal.

Bionomics and distribution. The new species is known only from Siping and Kangding areas of Sichuan Province (China), on the eastern edge of Tibetan plateau, where a few specimens were collected at the end of March – beginning of April at altitudes ranging from 1500 to 1600 m. It was attracted to light during cold (2–4 °C) nights in small river valleys. The habitat is mountain virgin mixed forest dominated by various broad-leaved trees, rhododendrons and bamboos (Fig. 27).

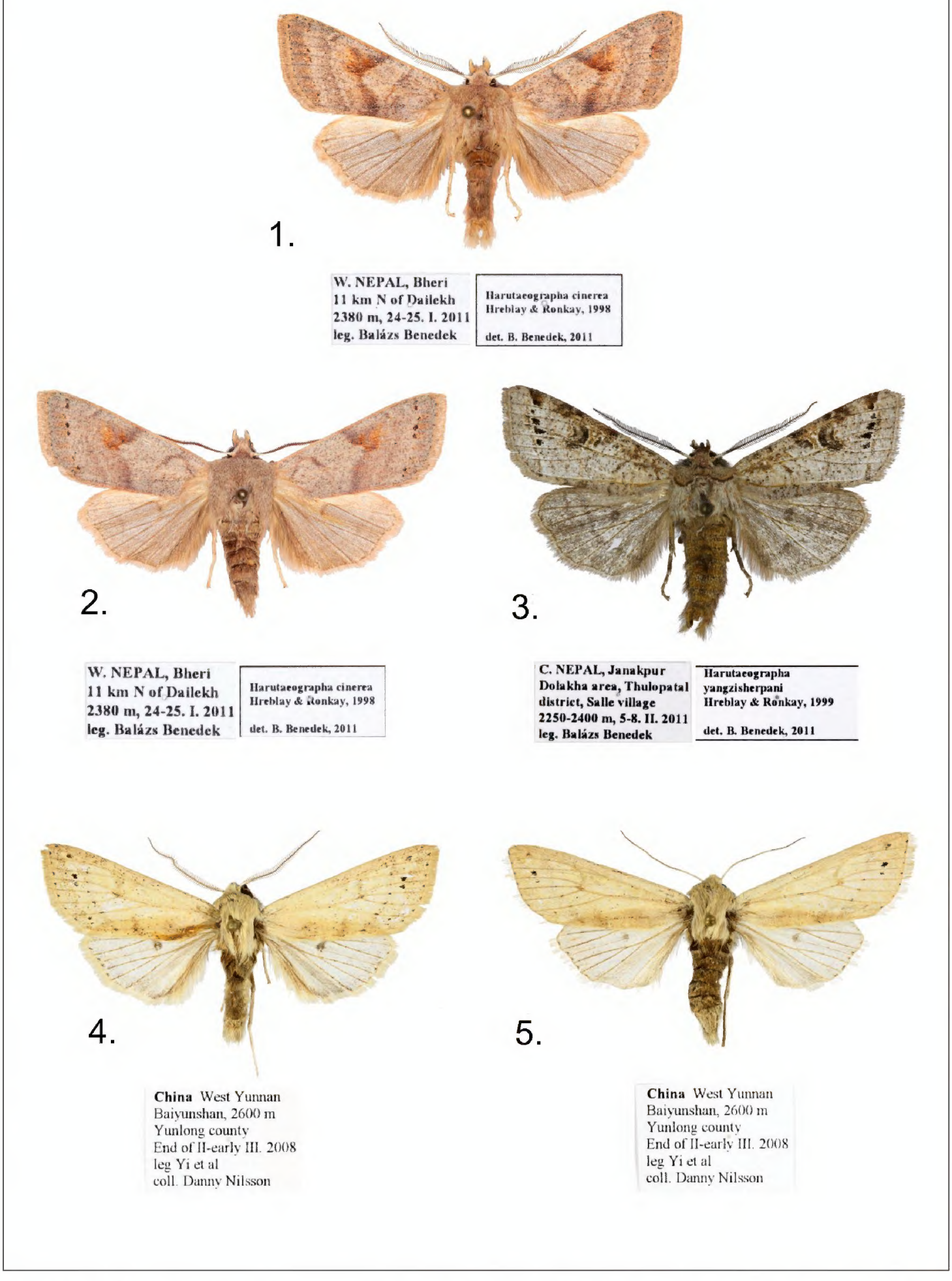
Harutaeographa monimalis (Draudt, 1950)

http://species-id.net/wiki/Harutaeographa_monimalis

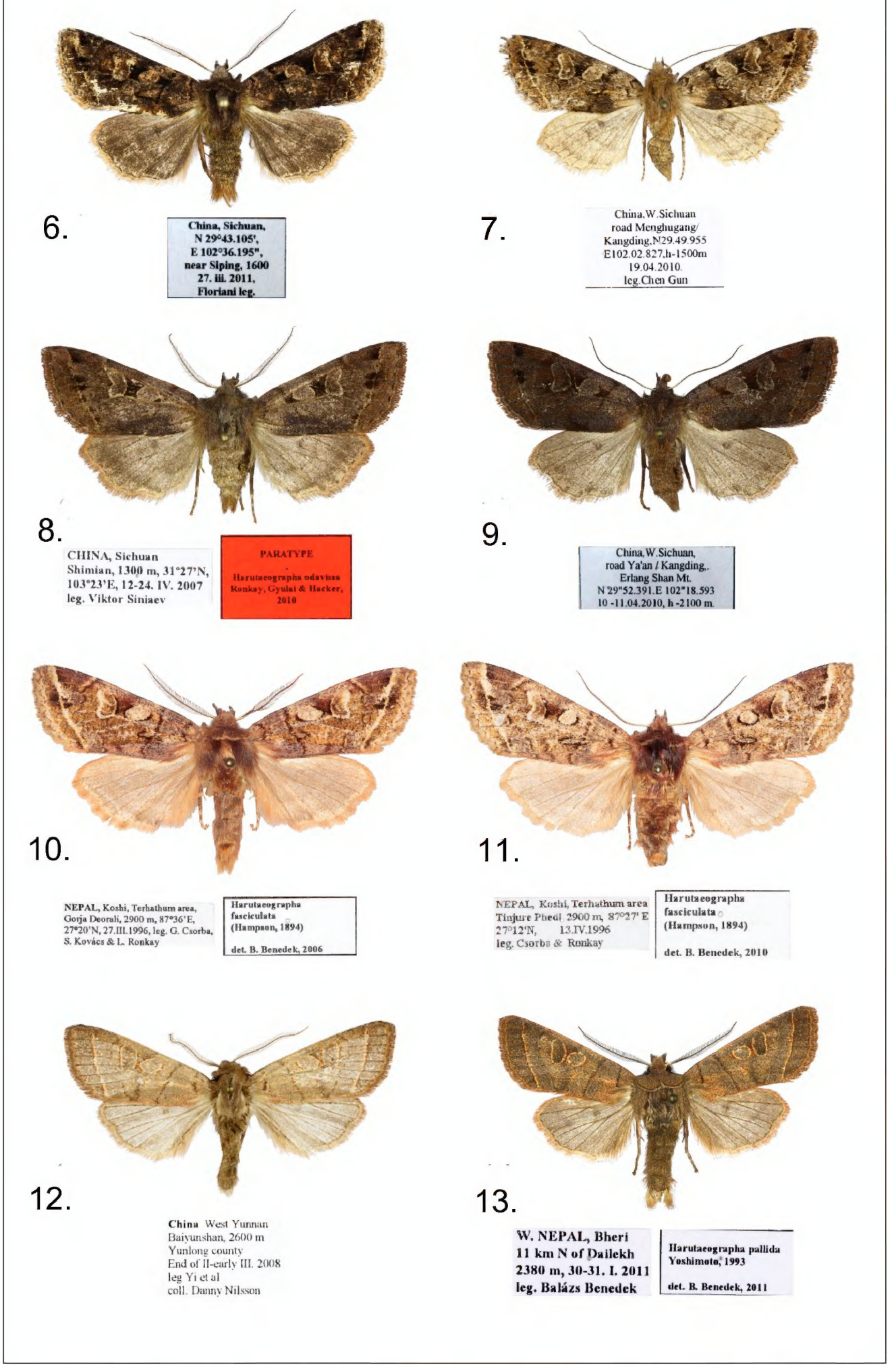
Figs 4, 5, 18, 24

Material examined. 1 male, 1 female, China, W. Yunnan, Baiyunshan, 2600 m, Yunlong county, end of ii - early iii.2008, leg. Yi et al, in the collection of DNK; slide Nos JB1851m (Fig. 18); JB1852f.

Diagnosis. Male genitalia. Uncus small, elongated; tegumen short; juxta long, tongue-shaped, more or less quadrangular; vinculum short and heavily sclerotised,



Figures 1–5. *Harutaeographa* ssp. adults. **1** *H. cinerea,* male, West-Nepal, Bheri (BBT) **2** *H. cinerea,* female, West-Nepal, Bheri (BBT) **3** *H. yangzisherpani yangzisherpani,* male, Nepal, Janakpur (BBT) **4** *H. monimalis,* male, China, W. Yunnan (DNK) 5 *H. monimalis,* female, China, W. Yunnan (DNK)



Figures 6–13. *Harutaeographa* ssp. adults. **6** *H. shui,* male, holotype, China, Sichuan (GBG/ZSM) **7** *H. shui,* female, paratype, China, Sichuan (AFM) **8** *H. odavissa,* male, paratype, China, Sichuan (BBT) **9** *H. odavissa,* female, China, Sichuan (BBT) **10** *H. fasciculata,* male, Nepal, Koshi (BBT) **11** *H. fasciculata,* female, Nepal, Koshi (BBT) **12** *H. pallida,* male, China, W. Yunnan (DNK) **13** *H. pallida,* male, West-Nepal, Bheri (BBT)

U-shaped; sacculus broad, with more or less parallel margins. Clasper relatively large, thumb-like, with elongated and heavily sclerotised base; clasper fused with relatively small and evenly curved ampulla. Valvae more or less symmetrical, broad, armed with strong, finger-shaped ventral process and large, broad digitus; cucullus broad and strong, more or less rhomboidal in shape. Aedeagus relatively long, straight and broad; vesica evenly helicoid in shape, everted ventrally, covered with a row of fine spiculi from basal part of vesica along to terminal segment where it merges into a stouter cluster of longer spines forming a brush-like structure. **Female genitalia** (Fig. 24): Ostium bursae wide, rounded; ductus relatively short; appendix bursae helicoid with three coils; corpus bursae constricted mesially with both anterior and posterior sections broadly elliptical.

Note. This is the first new report of this species known previously only by its holotype specimen collected by Dr. H. Höne in 1935 (coll. ZFMK, Bonn).

***Harutaeographa yangzisherpani transformis* Hreblay & Ronkay, 1999, syn. nov.**
http://species-id.net/wiki/Harutaeographa_yangzisherpani_transformis
Figs 3, 19

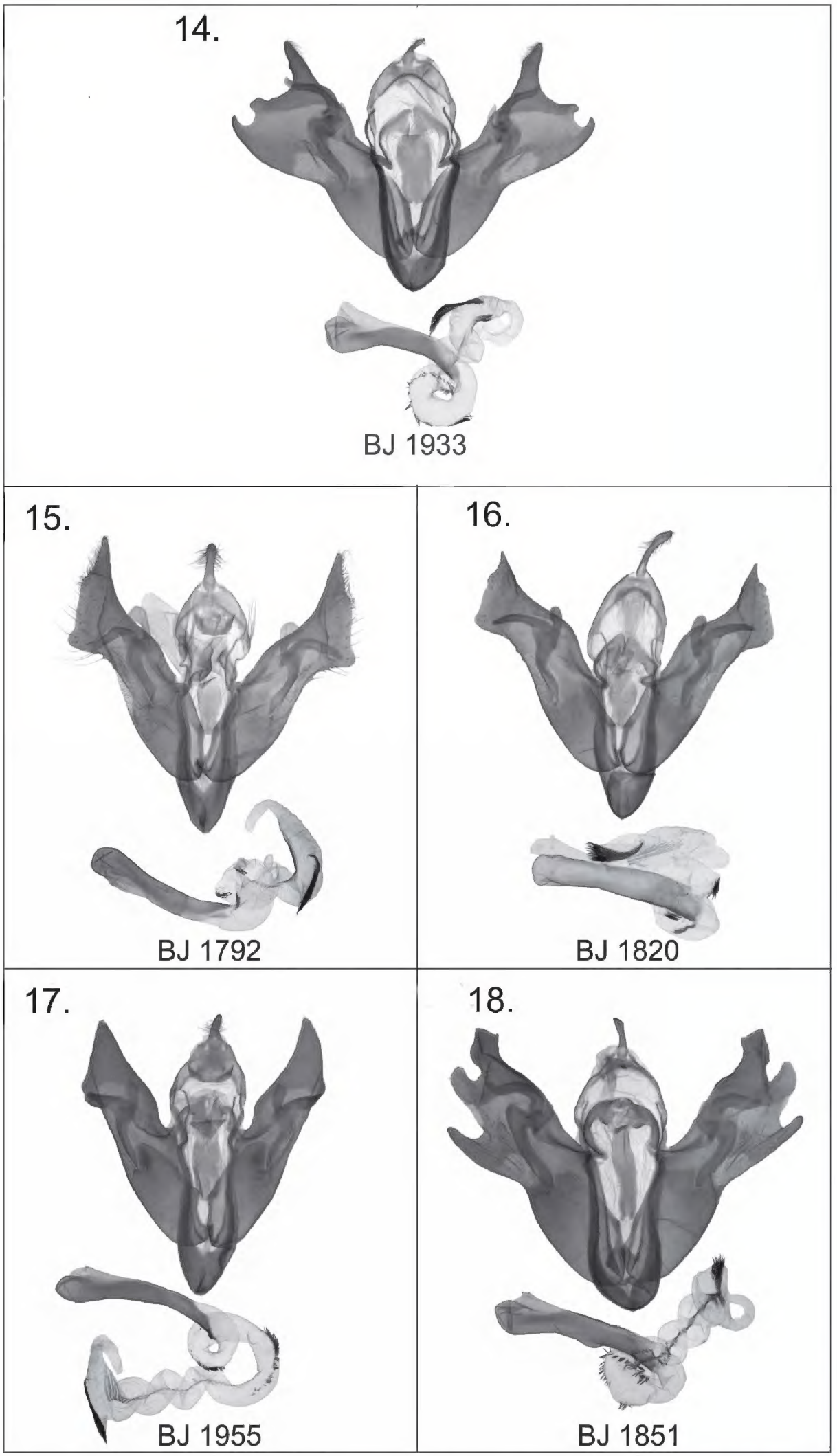
Material examined. 2 males, Nepal, Janakpur, Dolakha area, Thulopatal district, Salle village, 2250–2400 m, 27°35.998'N, 86°09.775'E 5–8.ii.2011, leg. Balázs Benedek, in the collection of BBT; slide No. JB1807m (Fig. 19).

Note. The genitalia of *H. yangzisherpani yangzisherpani* Hreblay & Ronkay, 1999 from Nepal exactly match those of *Harutaeographa yangzisherpani transformis* Hreblay & Ronkay from N. Vietnam pictured in Esperiana, 1999. The very slight genital differences between *H. yangzisherpani yangzisherpani* Hreblay & Ronkay, 1999 and *H. yangzisherpani transformis* Hreblay & Ronkay, 1999, suggest that they representing the same taxon and it is not reasonable to separate them as subspecies. Thus, *H. yangzisherpani transformis* Hreblay & Ronkay, 1999 is combined here as a synonym of *H. yangzisherpani yangzisherpani* Hreblay & Ronkay, 1999. It is first report of this species from Nepal.

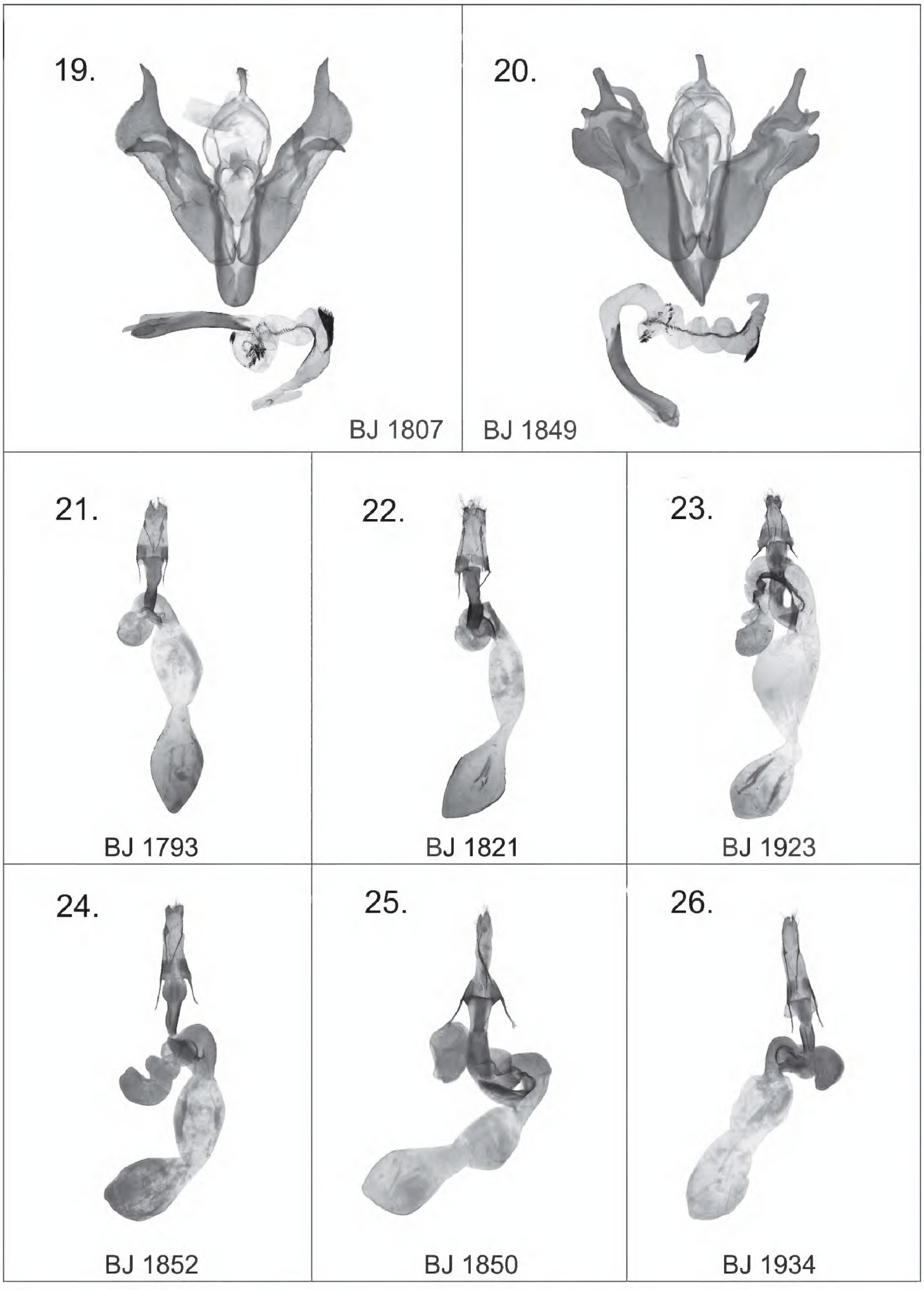
***Harutaeographa pallida* Yoshimoto, 1993**
http://species-id.net/wiki/Harutaeographa_pallida
Figs 12, 13, 20, 25

Material examined. 1 female, West-Nepal, Bheri, Dailekh area, 11 km N of Dailekh, 2380 m, 24–25.i.2011, 1 male, West-Nepal, Bheri, Dailekh area, 11 km N of Dailekh, 2380 m, 30–31.i.2011, 2 males, Nepal, Janakpur, Dolakha area, Thulopatal district, Salle village, 2250–2400 m, 5–8.i.2011, leg. Balázs Benedek, 3 males, 1 female, China, W. Yunnan, Baiyunshan, 2600 m, Yunlong county, end of ii - early iii.2008, leg. Yi et al, in the collections of BBT and DNK; slide Nos JB1849m, JB1850f, (Figs 20, 25).

Notes. These specimens, which are paler in colour than those from Nepal, are the first to be reported from China.



Figures 14–18. *Harutaeographa* ssp. male genitalia. **14** *H. cinerea,* male, prep. BJ1933m **15** *H. shui,* male, holotype, prep. BJ1792m **16** *H. odavissa,* male, paratype, prep. BJ1820m **17** *H. fasciculata,* male, prep. BJ1955m **18** *H. monimalis,* male, prep. BJ1851m



Figures 19–26. *Harutaeographa* ssp. male and female genitalia. **19** *H. yangzisherpani yangzisherpani,* male, prep. BJ1807m **20** *H. pallida,* male, prep. BJ1849m **21** *H. shui,* female, paratype, prep. BJ1793f **22** *H. odavissa,* female, prep. BJ1821f **23** *H. fasciculata,* female, prep. BJ1923f **24** *H. monimalis,* female, prep. BJ1852f **25** *H. pallida,* female, prep. BJ1850f **26** *H. cinerea,* female, prep. BJ1934f

Figure 27. *Harutaeographa shui*, type locality, China, Sichuan near Siping.

***Harutaeographa cinerea* Hreblay & Ronkay, 1998**
http://species-id.net/wiki/Harutaeographa_cinerea
Figs 1, 2, 14, 26

Material examined. long series of both sexes from the following localities: West-Nepal, Bheri, Dailekh area, 11 km N of Dailekh, 2380 m, 24–25.i.2011, West-Nepal, Bheri, Dailekh area, 13 km N of Dailekh, 2425 m, 26–27.i.2011, West-Nepal, Bheri, Dailekh area, 12 km N of Dailekh, 2600 m, 29.i.2011, West-Nepal, Bheri, Dailekh area, 11 km N of Dailekh, 2380 m, 30–31.i.2011, Nepal, Janakpur, Dolakha area, Thulopatal district, Salle village, 2250–2400 m, 5-8.ii.2011, leg. Balázs Benedek, in the collection of BBT.

Note. Little information has been available for this species due to insufficient collecting during its very early flight period (Hreblay and Ronkay 1998; Hreblay and Ronkay 1999). At the end of January–beginning of February in 2011 *H. cinerea* was one of the most frequently encountered noctuid species at light and sugar ropes at elevations between 2300–2600 m and is presumably widespread in Nepal.

Checklist of the genus *Harutaeographa*

Harutaeographa adusta Hreblay & Ronkay, 1999

Holotype: coll. M. Hreblay, HNHM. Type locality: Thailand, Changwat Chiang Mai, Mt. Doi Inthanon. Distribution: Indochina, Thailand.

Harutaeographa akos Hreblay, 1996 [1997]

Holotype: ZMH. Type locality: Tadjikistan, Gissar-Gebirge, Romit. Distribution: Tadjikistan (Gissar Mts.).

Harutaeographa babai Sugi & Sakurai, 1994

Holotype: NSMT. Type locality: Nepal, Dhaulagiri, Jomsom. Distribution: Nepal; Himalaya.

Harutaeographa bidui bidui Hreblay & Plante, 1996 [1997]

Holotype: coll. M. Hreblay, HNHM. Type locality: N.Pakistan, 5 km S Rattu. Distribution: Himalaya: N. Pakistan (Karakorum, Prov. Gilgit & Baltistan, Rattu, Prov. Jammu & Kashmir, Deosai Mts.).

Harutaeographa bidui kaghanensis Hreblay & Ronkay, 1999

Holotype: coll. Hreblay, HNHM. Type locality: Pakistan, Prov. NW-Frontier, Kaghan valley, Khanian. Distribution: Pakistan (Prov. NW-Frontier, Kaghan valley, Khanian).

Harutaeographa bicolorata Hreblay & Ronkay, 1998

Holotype: coll. Hreblay, HNHM. Type locality: Nepal, Ganesh Himal, 1 km E Gadrang. Distribution: Himalaya: Nepal (Ganesh Himal).

Harutaeographa brahma Hreblay & Ronkay, 1998

Holotype: coll. Hreblay, HNHM. Type locality: Nepal, Ganesh Himal, 2 km W Thangjet. Distribution: Himalaya: Nepal (Ganesh Himal).

***Harutaeographa brumosa* Yoshimoto, 1994**

Holotype: NSMT. Type locality: Nepal, Janakpur, Jiri. Distribution: Himalaya: Nepal (Janakpur, Jiri, Terhathum distr.).

***Harutaeographa caerulea caerulea* Yoshimoto, 1993**

Holotype: NSMT. Type locality: Nepal, Mt. Phulchouki. Distribution: Himalaya: Nepal (Katmandu Valley, Godavari).

***Harutaeographa caerulea rubrigrapha* Hreblay & Ronkay, 1999**

Holotype: coll. Hreblay, HNHM. Type locality: Thailand, Changwat Chang Mai, Mt. Doi Phahompok, 18 km NW Fang. Distribution: Indochina: Thailand (Chiang Mai).

***Harutaeographa castanea* Yoshimoto, 1993**

Holotype: NSMT. Type locality: Nepal, Godavari. Distribution: Himalaya: Nepal (Kathmandu Valley, Godavari).

***Harutaeographa castaneipennis* (Hampson, 1894)**

Holotype: BMNH. Type locality: India, Kashmir, Narkundah. Distribution: Himalaya: N.India (Prov. Jammu & Kashmir).

***Harutaeographa cinerea* Hreblay & Ronkay, 1998**

Holotype: coll. G. Ronkay. Type locality: Nepal, Ganesh Himal, near Slya. Distribution: Nepal (Ganesh Himal, Slya).

***Harutaeographa craspedophora* (Boursin, 1969)**

Holotype: coll. Vartian, NHM. Type locality: Afghanistan, Paghman-Gebirge, 20 km NW Kabul. Distribution: Afghanistan (Paghman Mts.).

***Harutaeographa diffusa* Yoshimoto, 1994**

Holotype: NSMT. Type locality: Nepal, Janakpur, Jiri. Distribution: Himalaya: Pakistan; Nepal.

***Harutaeographa elphinia* Hreblay & Ronkay, 1999**

Holotype: HNHM. Type locality: Vietnam, Prov. Lao Cai, Mt. Fan-si-Pan, 7 km SW Sa Pa. Distribution: Indochina, Vietnam (Prov. Lao Cai, Tonkin).

***Harutaeographa eriza* (Swinhoe, 1901)**

Holotype: BMNH. Type locality: W. India, Punjab, Himachal Pradesh, Kulu. Distribution: Himalaya; Pakistan; India (Prov. Punjab).

***Harutaeographa fasciculata* (Hampson, 1894)**
= *H. fusciculata* nec Hampson, 1894

Holotype: BMNH. Type locality: Sikkim (India). Distribution: Himalaya: Sikkim, N. India; Nepal; North Vietnam (Fansipan Mts).

***Harutaeographa ferrosticta* (Hampson, 1894)**

Holotype: BMNH. Type locality: Kashmir, Narkundah. Distribution: Himalaya: Pakistan; N. India (Prov. Jammu & Kashmir).

***Harutaeographa ganeshi* Hreblay & Ronkay, 1998**

Holotype: coll. G. Ronkay. Type locality: Nepal, Ganesh Himal, 2 km W Gholjong. Distribution: Himalaya: Nepal (Ganesh Himal, Gholjong).

***Harutaeographa izabella* Hreblay & Ronkay, 1998**

Holotype: coll. Hreblay, HNHM. Type locality: Nepal, Annapurna Himal, 1 km E Ghorepani. Distribution: Nepal.

***Harutaeographa kofka* Hreblay, 1996 [1997]**

Holotype: BMNH. Type locality: N. India, Muktesar, Naini-Tal. Distribution: Himalaya: Pakistan; N. India; Nepal.

***Harutaeographa loeffleri* Ronkay, Ronkay, Gyulai & Hacker, 2010**

Holotype: coll. P. Gyulai, HNHM. Type locality: Burma, Chun state, Mindat camp. Distribution: Myanmar (Chun state, Mindat camp, Chun state, Natmataung Nationalpark, Mt. Victoria).

***Harutaeographa maria* Hreblay & Ronkay, 1999**

Holotype: coll. Hreblay, HNHM. Type locality: Pakistan, Prov. Jammu & Kashmir, Naltar valley, 5 km E Naltar. Distribution: Himalaya: Pakistan (Prov Jammu & Kashmir, Karakorum).

Harutaeographa marpha **Hreblay & Ronkay, 1999**

Holotype: coll. Hreblay, HNHM. Type locality: Nepal, Dhaulagiri Himal, 6 km NW Marpha. Distribution: Nepal; Himalaya.

Harutaeographa monimalis **(Draudt, 1950)**

Holotype: ZFMK. Type locality: China, Yunnan. Distribution: China (Prov. Yunnan).

Harutaeographa odavissa **Ronkay, Ronkay, Gyulai & Hacker, 2010**

Holotype: HNHM. Type locality: China, Shaanxi, Taibaishan. Distribution: China (Prov. Shaanxi, Taibaishan, Tsinling Mts., Prov. Hubei, Daba Shan, Prov. Sichuan, Daxue Shan, Gongga Shan, Volong Reserve, Siguliang Shan, Qingcheng Shan).

Harutaeographa orias orias **Hreblay, 1996 [1997]**

Holotype: BMNH. Type locality: Prov. W. Bengal, Darjeeling. Distribution: Himalaya: N.India (Prov. Sikkim, Prov. W. Bengal, Darjeeling).

Harutaeographa orias yoshimotoi **Hacker & Hreblay, 1996 [1997]**

Holotype: coll. Hacker, ZSM. Type locality: N. India, Himachal Prad., Rohtang. Distribution: Pakistan (Prov. Kashmir), Himalaya: N. India (Himachal Pradesh, Rohtang Pass, Prov. Sikkim); Nepal; Indochina; Thailand (Prov. Chiang Mai, Doi Phahompok)

Harutaeographa pallida **Yoshimoto, 1993**

Holotype: HNSMT, Tokyo (Japan). Type locality: Nepal, Godavari. Distribution: Himalaya: N. India (Prov. Sikkim); Nepal (Katmandu Valley, Godavari, Solu Khumbu Himal, Ganesh Himal); China (Prov. Yunnan).

Harutaeographa pinkisherpani **Hreblay & Ronkay, 1998**

Holotype: coll. G. Ronkay. Type locality: Nepal, Ganesh Himal, 2 km SW Haku. Distribution: Himalaya: Nepal (Ganesh Himal, Haku).

Harutaeographa rama **Hreblay & Plante, 1996 [1997]**

Holotype: coll. Hreblay, HNHM. Type locality: N.Pakistan, 10 km SW Astor, Rama. Distribution: Himalaya: Pakistan (Jammu & Kashmir).

***Harutaeographa rubida* (Hampson, 1894)**
= *H. bipuncta* Yoshimoto, 1993

Holotype: BMNH. Type locality: Sikkim. Distribution: Himalaya: Nepal; N.India (Sikkim).

***Harutaeographa saba* Hreblay & Plante, 1996 [1997]**

Holotype: coll. M. Hreblay, HNHM. Type locality: N.Pakistan, 10 km SW Astor, Rama. Distribution: Pakistan; Afghanistan.

***Harutaeographa seibaldi* Ronkay, Ronkay, Gyulai & Hacker, 2010**

Holotype: coll. H. Seibald, Wien (Austria). Type locality: Burma, Chun state, Mindat camp. Distribution: Myanmar (Chun state, Mindat camp, Chun state, Natmataung Nationalpark, Mt. Victoria).

***Harutaeographa shui* Benedek & Saldaitis, 2012**

Holotype: ZSM. Type locality: China, Sichuan, 29°43.105'N, 102°36.195'E, near Siping. Distribution: China (Sichuan).

***Harutaeographa siva* Hreblay, 1996 [1997]**

Holotype: BMNH. Type locality: N. India, Simla. Distribution: Himalaya: N. India.

***Harutaeographa stangelmaieri* Ronkay, Ronkay, Gyulai & Hacker, 2010**

Holotype: coll. Becher/Stumpf (Germany). Type locality: China, Prov. Yunnan, Daxue Shan Mts. Distribution: China (Prov. Yunnan, Daxue Shan Mts).

***Harutaeographa stenoptera* (Staudinger, 1892)**

Holotype: MNHU. Type locality: Ussuri, Amur. Distribution: Russia: (SE Siberia, Amur, Ussuri, Primorje); Korea; China (Shaanxi).

***Harutaeographa yangzisherpani yangzisherpani* Hreblay & Ronkay, 1999**
= *H. yangzisherpani transformis* Hreblay & Ronkay, 1999

Holotype: coll. Hreblay, HNHM. Type locality: Thailand, Changwat Chiang Mai, Mts. Doi Inthanon. Distribution: Thailand, Vietnam; Nepal.

Acknowledgements

The authors would like to express their sincere thanks to János Babics (Budapest, Hungary) for providing excellent genitalia preparations and photographs, Kulman Tamang (Kathmandu, Nepal) for field work assistance, Alessandro Floriani (Milan, Italy) and Danny Nilsson (Kalvehave, Denmark) for kindly loaning material, Gottfried Behounek (Grafing, Germany), Povilas Ivinskis (Vilnius, Lithuania) Rima Gulbinaite (Vilnius, Lithuania) for taxonomic suggestions, Tomas Zubacikas (Vilnius, Lithuania) for assistance with imago pictures and and especially to Mr Laszlo Ronkay (Hungary) and Mr Don Lafontaine (Canada) for corrections. The authors are especially grateful to Robert Borth (Milwaukee, United States) for English grammar suggestions.

References

Chen YCH (1999) Fauna Sinica: Insecta, Lepidoptera, Noctuidae, Vol. 16. Science Press, Beijing, 1596 pp.

Hacker H, Ronkay L (1996) Three new genera, seven new species and a general view of the late autumnal fauna of the Himachal Pradesh region in India (Lepidoptera, Noctuidae: Cucullinae sensu Hampson). Esperiana, Buchreihe zur Entomologie 4: 337–359.

Hampson GF (1894) Fauna of British India (Moth) 2. Taylor and Francis, London, 609 pp.

Hampson GF (1906) Catalogue of the Lepidoptera Phalaenae in the British Museum. Volume 6. British Museum Trustees, Taylor and Francis, London, 532 pp.

Hreblay M, Ronkay L (1998) Noctuidae from Nepal, 5. Tinea 15 (Suppl.1): 117–310.

Hreblay M, Ronkay L (1999) Neue trifide Noctuidae aus dem himalayischen Raum und der südostasiatischen Region, (Lepidoptera; Noctuidae). Esperiana, Buchreihe zur Entomologie 7: 485–620.

Hreblay M, Ronkay L, Plante J (1998) Contribution to the Noctuidae Fauna of Tibet and the adjacent regions (II.), a systematic survey of the Tibetan Noctuidae fauna based of the material of the Schäfer-Expedition (1938–1939) and recent expeditions (1938–1939). Part I, List of species collected by the Schäfer -Expedition. Part II, List of species of the expeditions 1996–1997. Part III, Descriptions. Esperiana, Buchreihe zur Entomologie 6: 69–184.

Kononenko VS, Ahn SB, Ronkay L (1998) Illustrated Catalogue of Noctuidae in Korea, (Lepidoptera), Insects of Korea. Series 3. Junghaeng-Sa, Seul, Korea, 507 pp.

Lafontaine JD (2004) Noctuoidea, Noctuidae (part), Noctuinae (part - Agrotini). In: Hodges RW (Ed) The Moths of North America, fasc. 27.1. The Wedge Entomological Research Foundation, Washington, 385 pp.

Ronkay G, Ronkay L (2000) New *Agrochola* Hübner, 1821 and *Owadaglaea* Hacker et Ronkay, 1996 species from Central Asia and Indochina (Lepidoptera, Noctuidae, Xylenini). Acta Zoologica Academia Scientiarum Hungarica 46(4): 351–382.

Ronkay G, Ronkay L, Gyulai P, Hacker H (2010) New *Xylenini* (Lepidoptera, Noctuidae, Xyleninae) species and genera from the wide sense Himalaya region. Esperiana, Buchreihe zur Entomologie 15: 245–354.

Ronkay L, Yela JL, Hreblay M (2001) Hadeninae II. Noctuidae Europaeae. Volume 5. Entomological Press, Sorø, 452 pp.

Yoshimoto H (1993) Moths of Nepal, Part 2, Noctuidae. Tinea 13 (Suppl.1): 124–141.

Yoshimoto H (1994) Moths of Nepal, Part 3, Noctuidae. Tinea 14 (Suppl.1): 95–139.